Issues Impacting Fort Hall Reservation- Shoshone-Bannock Tribes
Eastern Michaud Flats- FMC Operable Unit

1. USC- Undocumented Subsurface Conditions- During excavation into the slag pile FMC and their contractors regularly encounter areas of elemental phosphorus, releasing P205. These areas burn and generate P205.

   EPA Response: Since October 2014 there have been about 200 incidents where workers have encountered elemental phosphorus (P4) material when operating closed cab grading equipment. That is an average of about one incident per day. Each incident has been responded to consistent with the Site-Wide Health and Safety Plan and Emergency Response Plan by the onsite emergency response contractor. In grading about 2 million cubic yards of material, to date approximately 850 cubic yards of debris containing P4 waste has been unearthed and placed in temporary storage. EPA has asked FMC to dispose of this material off-site.

   The Tribes are notified about each P4 discovery by EPA's field oversight contractor who provides daily reports concurrently to EPA and the Tribes. Each week, FMC also provides EPA and the Tribes with an updated map showing the location of P4 waste discoveries and an updated spreadsheet which lists the date encountered and approximate amount of P4 waste found.

   FMC anticipates completing the grading phase of work and beginning capping with clean material at the end of September.

2. Slag Pile- 22 railcars containing elemental phosphorus are buried within the slag pile. At the signing of the IROD, the railcars were listed at 80-foot depths. FMC has excavated between 25 to 60 feet of slag from the pile. EPA determined the rail cars could not be excavated safely however, FMC has now excavated slag to depths between 25 to 60 feet and spread through out the site to re-grade.

   EPA Response: The slag pile area where railcars are buried has been lowered approximately 20 feet as part of the site wide grading phase. The railcars are now estimated to be about 60 feet beneath the surface. The area above the railcars are to receive an ET cap to minimize percolation of precipitation through the slag to the rail cars. In the event residual P4 waste is still in the railcars, this is expected to prevent contaminants from impacting groundwater.

3. AMENDED ROD- Slag containing elemental phosphorus has been spread throughout the site. Elemental phosphorus is now spread onto new areas.

   EPA Response:

The slag onsite is waste rock generated as a by-product from extraction of elemental phosphorous from ore. The slag contains mostly silica and calcium with some heavy metals and radionuclides but not elemental phosphorous. During the grading phase, elemental phosphorus waste and debris has been encountered in the slag pile and it has been segregated and placed in two temporary storage locations. EPA has asked FMC to dispose of this waste material off-site.

Slag has been graded within areas of contaminated soil at the FMC OU as part of the grading phase to prepare the site for clean soil caps. There has not been movement of slag into uncontaminated areas such as the southern and western undeveloped areas. Grading of the slag to prepare for capping is a fundamental component of the IRODA.

4. RCRA Ponds- Unilateral Administrative Order /CERCLA- Ponds continue to generate phosphine. The monitoring is inadequate. No soil sampling outside the pond area, we have no idea if phosphine is migrating outside the ponds into the adjacent soils. Piping within one of the ponds burned from excess heat generated by high phosphine levels. Went undetected for months until phosphine was measured in electrical equipment box. Continue to get pushback on sampling soils around these ponds to determine if phosphine is migrating outside the area.

   EPA Response:
   EPA recognizes that the Tribes have concerns regarding the adequacy of the current monitoring for phosphine under the CERCLA Unilateral Order for the time critical removal action. Phosphine monitoring is a matter the RCRA program is evaluating, to determine what additional monitoring is needed, including possible soil gas monitoring, re assure the long term protection of human health and the environment. We will continue to work with the Tribes in determining what the long term RCRA post-closure monitoring and gas extraction and treatment requirements will be for the FMC ponds. Questions on the RCRA program work regarding air monitoring related to the FMC ponds can be direct to the RCRA Project Manager Heather Valdez, 206-553-6220 or Valdez.heather@epa.gov.

   Potential follow up response:
   Because EPA is in the process of determining how best to conduct the evaluation regarding additional monitoring needs, we can't say at this time how long that evaluation will take, but we will be working with the Tribes to determine how best to conduct the evaluation as well as throughout the actual evaluation process.

Eastern Michaud Flats- Simplot Operable Unit

5. Gypsum Stack Expansion at Simplot Operable Unit. - Expanded Stack 290 acres, this stack is an Operable Unit contributing to groundwater contamination.

Background

Simplot has been stacking gypsum wastes at the Don Plant since 1944. The current stack is over 200 feet high and has a surface area that is over 200 acres. Simplot has recently started construction to add an additional 95 acres to the gypstack. All gypsum placed on this portion of the stack will be placed on top of a geosynthetic liner with minimal permeability. Groundwater immediately downgradient of the stack is being monitored and data assessed for indication of any leakage.

The project has been reviewed by both RCRA and CERCLA staff. The design is consistent with industry best practices for construction of disposal areas for phosphoric acid plants and is not expected to result in additional discharge to the groundwater. The design plans were also reviewed by IDEQ and the Tribes. IDEQ approved the plans pursuant to a Voluntary Consent Order. (Note: the extent to which the gypstack is regulated under RCRA is currently being discussed as part of the National Phosphoric Acid Initiative/enforcement case)

The Tribes voiced significant concerns with the expansion but have not provided any technical information to support their positions. They also requested that the new portion of the gypstack be regulated as a new Operable Unit under CERCLA. Rick Albright met with the Tribal Council on January 21, 2015 to listen to the Tribe's concerns. Questions raised during the consultation were addressed in a follow-up letter to the Tribes.

The Simplot CERCLA Consent Decree prohibits any activities by the JR Simplot Company which may impact the CERCLA remedy. Based on an evaluation of potential impacts of the gypstack expansion, EPA's CERCLA program has no cause to prohibit Simplot from expanding their ongoing operations as it does not currently appear that the action would negatively impact the ongoing remedial measures. This was communicated to the Tribes on February 19, 2015, and Simplot on March 31, 2015.

EPA Response:

- EPA understands the Tribes concerns regarding the impact the current gypsum stack is having on groundwater and is actively working to implement the CERCLA remedy to address those problems.

- Region 10 has reviewed Simplot's plans for the gypstack expansion and is reviewing the construction reports for consistency with EPA requirements. The new portion of the gypstack has been designed to be consistent with industry best practices for construction of disposal areas for phosphoric acid plants and is not expected to result in additional discharge to the groundwater. Groundwater monitoring is in place to detect any leaks if they were to occur.

- EPA encourages the Tribes to provide the Region with any technical concerns they have as the project proceeds.

6. Continuous Release- Leak at the south end of the gypsum stack. Simplot referred to this as a "stormwater basin" it was gypsum water leaking onto BLM property. With EPA 's approval, added bags of lime to raise pH- no characterization, no sampling. EPA considered this new leak part of the existing release- leak from the gypsum stack. The Tribes continue to request – and are denied- expanded sampling to determine if this new leak has or will further impact groundwater contamination.

   Background

   In 2013 a seep was found at the base of the southeast corner of the gypstack, creating a pool of low pH water in a low area that includes land owned by both Simplot and BLM. Simplot reported the seep to IDEQ, EPA and BLM and evaluated alternatives to address the seep and the pond formed by the seep. It was determined that the seep was fed by water in the gypsum deposited in the southeast corner of the gypstack and that the ultimate solution was to eliminate the movement of water through the area by lining the gypstack (CERCLA remedy). Since that area of the gypstack was not scheduled to be lined until 2016, Simplot added lime to the pond to neutralize the water (thus reducing harmful exposure potential) and pumped the accumulated water back to the stack on a weekly basis. In addition, Simplot moved dry gypsum to that portion of the stack to reduce the flow to the seep. This spring, Simplot constructed a dike across the southeast corner of the gypstack further limiting the water in the vicinity of the seep. No water has accumulated in the pond since early June.

   Simplot continues to monitor the pond to ensure there is no further accumulation of seep water. The portion of the gypstack adjacent to the seep will be drained this fall; a liner is scheduled to be installed next year.

   The Tribes have recently shown great interest in the seep. EPA, IDEQ and Simplot have provided them with additional information and arranged a site visit. EPA Region 10 has received several inquiries from the Tribes regarding reporting requirements for continued releases under EPCRA 303. The requested information has been provided to the Tribes.

EPA Response:

- EPA understands the Tribes concerns regarding the seep in southeast of the gypstack. When EPA evaluated the seep, we found no probable source outside the gypstack. IDEQ and Simplot's evaluations resulted in the same finding. Elsewhere throughout the gypstack, this same contaminated water is releasing to the groundwater and is extracted by the downgradient extraction system. Collecting additional water quality data is highly unlikely to result in a different course of action and thus has not been collected.

- Simplot has taken steps to limit exposure to the seep water and are addressing the underlying cause through the gypstack lining project. Adjusting the pH with lime causes metals to precipitate out, to prevent them from going into groundwater. The lining project is scheduled to be completed next year. If the Tribes are aware of any routes of exposure that are not being addressed, please discuss these with our Superfund staff.